AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated in the following listing of all claims:

1. (Original) A method for communicating packets between one of a plurality of sending nodes and one of a plurality of receiving nodes of a switched network, the switched network including a buffer-less switch coupling the sending nodes and the receiving nodes, the method comprising:

transmitting packets from respective sending nodes to respective input ports of the buffer-less switch; and

forwarding all packets that are successfully delivered through output ports of the buffer-less switch to the receiving nodes, through the buffer-less switch with a fixed forwarding rate.

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2. (Original) The method as recited in claim 1 wherein each receiving node sends an acknowledge to a respective sending node at a predetermined time with respect to sending a corresponding packet, to indicate successful delivery of the corresponding packet to the sending node, thereby providing a fixed time for the sending node to know whether a packet was successfully transmitted.

3. (Original) The method as recited in claim 2 wherein the sending node determines that transmission of a packet was unsuccessful by checking if the acknowledge was returned after the predetermined time has elapsed.

4. (Original) The method as recited in claim 3 wherein the receiving node sends a no acknowledge (nack) at the predetermined time to the sending node on detection of an error condition in receipt of the packet.

5. (Original) The method as recited in claim 4 wherein the error condition detected by the receiving node is one of a buffer overflow and a checksum error.

6. (Original) The method as recited in claim 2 wherein unsuccessful transmission is determined by a timeout indicating that an acknowledge failed to arrive after the predetermined time has elapsed.

7. (Original) The method as recited in claim 1 further comprising:

for each packet being sent over the switched network, requesting respective transmission paths through the switched network to one of the receiving nodes;

allocating one of the transmission paths to a first requester with respect to arrival time in the buffer-less switch, the first requester requesting the one transmission path, and ignoring any other requests for the one transmission path until the one transmission path again becomes available; and

if multiple requests collide by requesting a switch resource simultaneously, selecting a first packet associated with one of the requests as a winning packet and dropping any other packets associated with requests other than the one request.

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8. (Original) The method as recited in claim 7 wherein the requests for transmission paths are contained within the packets sent into the network and extracted after entry into the switch.

9. (Original) The method as recited in claim 7 further comprising selecting the winning packet according to at least one of a random basis and a round robin basis.

10. (Original) The method as recited in claim 7 further comprising selecting the winning packet according to a fairness criteria having an objective to allocate to each input port an equal share of bandwidth at each output port.

11. (Original) The method as recited in claim 7, wherein no buffer space is allocated in a receiving node before a packet is sent, thereby simplifying switch overhead.

12. (Original) The method as recited in claim 11 wherein if the receiving node detects a buffer overflow, the receiving node sends a no acknowledge packet (nack) to the sending node indicating that a packet associated with the buffer overflow was not successfully received.

13. (Original) The method as recited in claim 1 wherein communicating packets between one of the sending nodes and one of the receiving nodes further comprises:

the sending node writing a packet to a send register;

the sending node polling a status register to determine if transmission of the packet was successful; and

if transmission was unsuccessful rewriting the packet to the send register.

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14. (Original) A method for utilizing a switch of a switched network comprising:

forwarding packets at a fixed rate on a first come first served basis from respective input ports through the switch to respective output ports; and

if a first and second packet simultaneously request a switch resource, selecting one of the first and second packets a winner and one a loser, the winner obtaining the switch resource, and dropping the loser.

15. (Original) The method as recited in claim 14 wherein the selecting is determined according to at least one of a random selection and a round robin selection.

16. (Original) The method as recited in claim 14 wherein low latency packets are transmitted on the switch.

17. (Original) The method as recited in claim 14 wherein a sending node can positively determine after a fixed delay with respect to sending of the packet that a packet was successfully transmitted across the switched network.

18. (Original) A computing system comprising:

a plurality of sending and receiving nodes;

a low latency switched network including a first switch, the first switch being a buffer-less switch coupling the plurality of sending and receiving nodes, the buffer-less switch having a fixed forwarding delay for all packets sent from one of the sending nodes and successfully received by one of the receiving nodes.

19. (Original) The computing system as recited in claim 18 further comprising a second switched network, including a second switch coupled to the plurality of sending and receiving nodes.

20. (Currently amended) The computing system as recited in claim ~~18~~ 19 wherein the first switch carries scheduling information for a storage device and the second switch carries bulk traffic for at least one of storage and retrieval on the storage device.

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21. (Original) The computing system as recited in claim 18 wherein each sending node includes a send register written into by a sending node to send data across the network.

22. (Original) The computing system as recited in claim 21 wherein each sending node includes a status register indicating whether a transfer across the network completed successfully.

23. (Original) The computing system as recited in claim 22 wherein the status register includes a field indicating a type of failure.

24. (Original) The computing system as recited in claim 22 wherein a sending node rewrites data into the send register if a transfer across the network for the data completed unsuccessfully.

25. (Original) The computing system as recited in claim 18 wherein the buffer-less switch further comprises:

a plurality of input registers coupled to respective input ports;

switch control logic, coupled to the input registers and responsive to packet information stored in the registers, to allocate output ports on the switch according to the packet information;

and wherein the switch control logic is responsive to allocate output ports on a first come first served basis.

26. (Original) The computing system as recited in claim 25 wherein respective packet information provided to the switch control logic constitutes respective requests for output ports, and if a first and second request for an output port path collide by requesting the output port at the same time, the switch control logic responds by selecting one of the requests as a winner and dropping a packet associated with the second request.

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27. (Original) The computing system as recited in claim 25 further comprising output registers in the buffer-less switch coupled to receive data selected by respective selector circuits selectively coupled to respective ones of the input ports.

28. (Original) The computing system as recited in claim 26 wherein the switch control logic selects the winner according to at least one of a random basis and a round robin basis.

29. (Original) The computing system as recited in claim 18 wherein the low latency switched network includes a plurality of cascaded buffer-less switches, thereby forming a multi-stage buffer-less switch.

30. (Currently amended) A switched network comprising:

means for forwarding packets ~~ports~~ at a fixed rate on a first come first served basis from respective input ports through ~~the~~ a switch to respective output ports; and

means for selecting one of a first and second packet as a winner and one a loser, the winner obtaining a switch resource, and dropping the loser, if the first and second packet simultaneously request the switch resource.